

Application No.: 09/880,769

Docket No.: 60680-1647

**REMARKS/ARGUMENTS**

Applicant has carefully reviewed the Office Action mailed May 20, 2004. Applicant thanks Examiner Pickard for her detailed review of the pending claims. In response to the Office Action, Applicant has amended claim 1. No new claims have been added and no claims have been cancelled. By way of this amendment, no new matter has been added. Accordingly, claims 1-6, and 8-21 remain pending in this application. Applicant respectfully requests reconsideration of the present application in view of the above amendment and the following remarks.

**Claim Rejections Under 35 U.S.C. §103****A. Udagawa in view of Peterson**

Claims 1-6, 8-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Udagawa (U.S. Patent No. 4,869,516) in view of Peterson (U.S. Patent No. 5,473,133).

MPEP Section 2143 sets forth the basic requirements for the Patent and Trademark Office to establish prima facie obviousness as follows: "To establish a prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

At the outset, Applicant respectfully submits that neither Udagawa nor Peterson suggest the proposed combination nor teach all limitations of the rejected claims. The Examiner asserts that Udagawa teaches a weld bead 25a. A close reading of Udagawa reveals that item 25a is a circular raised bead formed into inner plate 25, and not a welding bead as recited in the rejected claims. (See Udagawa, FIGS. 1 and 2, and Col. 2, L. 45-57) Therefore, the assertion that Udagawa teaches a "distance varies closer to and due to the projection of the weld bead" is

Application No.: 09/880,769

Docket No.: 60680-1647

misguided. Udagawa only teaches a spot weld to connect inner plates 23, 24 and outer plates 25 of a steel laminate gasket and no other welding connection. (See Udagawa, FIGS. 1 and 2, and Col. 2, L. 65-68) Additionally, Udagawa teaches the necessity of two depressions 26, substantially the same height as bead 25a, used as connecting locations for the spot welds in order to maintain inner plate 23 and outer plate 25 substantially parallel. (See Udagawa, FIGS. 1 and 2, and Col. 2, L. 58-60) In contrast, claim 1 recites a "welding bead has a smaller height than said sealing bead." Therefore, Udagawa teaches away from claim 1 by requiring a depression 26 with the same height as bead 25a.

Applicant agrees with the Examiner that Udagawa does not teach a weld bead that extends continuously around a through-hole. Applicant respectfully submits that Peterson, in turn, also does not teach a weld bead that extends continuously around a through-hole. First, Peterson does not teach a welding bead, but relates to ordinary projection welding where the projections are flattened during the welding process, as clearly evidenced by the passages "the intent is to form weldments where the projections are *flattened*," (emphasis added) (Col. 1, L. 54-55), and "the rate at which a projection 24 collapses," (Col. 5, L. 45). Thus, a weld produced by the teachings of Peterson results in deforming projections 24 into the contacting surfaces of two components that are welded. Therefore, any teaching of Peterson applied to Udagawa would result in a completely flattened welding bead, where facing surfaces are in contact, and thus no welding bead at all, contrary to the limitations recited in independent claims 1, 8, and 16. In support of this description of the welding bead, the Examiner is directed to paragraphs [0019], [0023], [0040], [0041], [0056], and [0058], and Figures 2-14, clearly indicating that the welding bead is not flattened after the welding operation.

Second, Peterson does not suggest extending a welding bead continuously around a through-hole. Applicant notes that Peterson teaches welding in a straight line, and that Udagawa teaches, at most, two spot welds on either side of a through-hole. Neither of these teachings, taken for all that they suggest, lead one to extending a welding bead continuously around a through-hole, as recited in independent claims 1, 8, and 16.

Furthermore, the references of record fail to suggest a "welding bead maintaining said at least one metal layer and said at least one metal ring in a spaced-apart relationship," as recited in independent claims 1 and 8. (See the above discussion regarding the lack of teaching a welding bead.) For at least these reasons, independent claims 1, 8, and 16 are respectfully submitted to be in condition for allowance.

Application No.: 09/880,769

Docket No.: 60680-1647

Additionally, the rejected dependent claims recite separately patentable subject matter, and are also respectfully submitted to be in condition for allowance. For example, the limitation of claim 4 reciting a compressible welding bead, and the limitation of claim 21 reciting "arranging at least one abutment element outside the welding bead during generation of the welding joint," are not suggested by the references of record.

**B. Tanaka in view of Opprecht**

Claims 1-6, 8-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka (U.S. Patent No. 5,690,342) in view of Opprecht (U.S. Patent No. 4,850,214).

Applicant notes that the limitation of claim 1 of a "welding bead has a smaller height than said sealing bead," is not taught or suggested in the references of record. Neither Tanaka or Opprecht teach a welding bead as recited in the independent claims, nor a sealing bead with a smaller height.

The Examiner has failed to establish prima facie obviousness because Tanaka in combination with Opprecht fail to teach each limitation of the claimed invention. As argued above, independent claims 1, 8, and 16 recite a limitation of the metal ring being welded to the metal layer over the welding bead. Neither Tanaka or Opprecht teach a weld over a welding bead as evidenced by FIGS. 2A – 6B of Tanaka and FIG. 9 of Opprecht, where the facing surfaces of the welded components are in full contact. (See also, Tanaka Col. 3, L. 27-31, and Opprecht Col. 5, L. 47-50)

Additionally, neither Tanaka or Opprecht teach elements of a gasket separated by a welding bead, as recited in independent claims 1, 8, and 16. Both Tanaka and Opprecht teach welding components where facing surfaces are in full contact. (See FIGS. 2A – 6B of Tanaka and FIG. 9 of Opprecht) In addition to this failure of the references of record to teach every limitation of the independent claims, any combination of Tanaka and Opprecht would, at most, teach welding components where facing surfaces are in full contact, and not spaced apart.

The Examiner has further failed to establish prima facie obviousness because there is no suggestion or motivation to combine the teachings of Tanaka and Opprecht. As recited in independent claims 1, 8, and 16, the welding bead places the metal ring and metal layer in a spaced apart relationship. Tanaka is directed toward a gasket that attaches a ring-shaped shim to

Application No.: 09/880,769

Docket No.: 60680-1647

a metal substrate by laser-welding, and fails to teach or suggest a metal ring and metal layer in a spaced apart relationship. Opprecht is directed toward a method of welding using a projection and clearly does not teach or suggest a metal ring and metal layer in a spaced apart relationship. (See Figure 9). Additionally, Tanaka does not teach projection welding of laminate gaskets, much less the modified projection welding taught in paragraphs [0019], [0023], [0040], [0041], [0056], and [0058]. For at least these reasons, independent claims 1, 8, and 16 are respectfully submitted to be in condition for allowance.

Additionally, the rejected dependent claims recite separately patentable subject matter, and are also respectfully submitted to be in condition for allowance. For example, the limitation of claim 4 reciting a compressible welding bead, and the limitation of claim 21 reciting "arranging at least one abutment element outside the welding bead during generation of the welding joint," are not suggested by the references of record.

Furthermore, the assertion by the Examiner that "Oprecht teaches using deformation limiters/abutments (see Fig. 8) during the welding," is clearly misguided, since Opprecht does not mention this feature, and "FIG. 8 is a sectional view through a projection tool for forming the projection..." (Col. 3, L. 30-31). Applicant has found no passage or figure in Opprecht that suggests a deformation limiter as recited in dependent claim 20.

## CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

It is believed that any additional fees due with respect to this paper have already been identified in any transmittal accompanying this paper. However, if any additional fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge account number 18-0013 in the name of Rader.

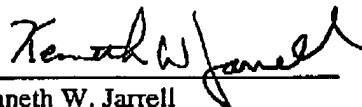
Application No.: 09/880,769

Docket No.: 60680-1647

Fishman and Grauer PLLC. If the Examiner has any question or comments, he is kindly urged to call the undersigned to facilitate prosecution.

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Respectfully submitted,

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